

A2 CC Complex Numbers Practice

Name _____

Date _____

1. For the complex number $-10 + 4i$, identify the real number and the imaginary number.

2. Evaluate. a) i^2 b) i^3 c) i^4 d) i^9 e) i^{14}

3. Write the expression as a complex number in standard form.

a) $(5 + 2i) + (3 - 2i)$ b) $-i + (7 - 5i) - 3(2 - 3i)$ c) $(-2 + 4i) + (3 - 9i)$

d) $(-2 + 4i) - (3 + 9i)$ e) $(5 - 2i) - 2(3 + i)$ f) $3i(6 - 5i)$

g) $i(2+i)$

h) $(2+3i)(1-4i)$

i) $(-3+7i)(1-2i)$

j) $(3-2i)^2$

k) $(2i)(1-4i)(1+i)$

4. Solve each equation.

a) $x^2 = -60$

b) $4x^2 + 20 = 0$

c) $6x^2 + 1 = -5$